

CLAIMS

I claim:

1. A concrete structural section for use in construction, the concrete structural section comprising:
  - 5 a first end, a second end disposed opposite the first end, and a length extending between the first and second ends;
  - a first side extending along the length of the section from about the first end to about the second end;
  - a first edge connected to the concrete section and extending along the first side
  - 10 for connecting the concrete section to an adjoining concrete section, the first edge being formed from a plastic material.
2. The section of Claim 1, further comprising a second side disposed opposite the first side and extending along the length of the section from about the first end to about the
- 15 second end, and a second edge connected to the concrete section and extending along the second side, the second edge being formed from a plastic material.
3. The section of Claim 1, wherein the first edge comprises a lateral portion adjacent the first side of the concrete section, an extension extending into the concrete section
- 20 from the lateral portion, and an anchor portion disposed at an end of the extension opposite the lateral portion, the first edge being at least partially embedded within the concrete section, the anchor portion having a cross-sectional area greater than the cross-sectional area of the extension.
- 25 4. The section of Claim 1, wherein the first edge has an exposed face facing away from the section and a concealed face facing towards the section and contacting the concrete, and a flexible layer being disposed between the concealed face and the concrete.

5. The section of Claim 1, further comprising a top surface and a bottom surface disposed opposite the top surface, the first edge having a removable strip positioned adjacent top surface and extending along the length of the concrete section from about the first end to about the second end, a groove being exposed adjacent the intersection of the first side and the top surface when the removable strip is removed from the first edge.

6. The section of Claim 1, wherein the concrete section includes a double-tee having a deck and two legs extending downwardly from the deck.

7. The section of Claim 1, wherein the first edge has an exposed face facing away from the section and a concealed face facing towards the section and contacting the concrete, the concealed face defining an elongated channel extending at least partially along the length of the section, the elongated channel having an opening and a base, the opening being narrower than the base and forming an interlocking tongue-and-groove engagement with the concrete section with at least a portion of the concrete disposed within the elongated channel.

8. The section of Claim 1, wherein the first edge has a cross-section that remains substantially the same as the first section extends along the length of the concrete section.

9. A joint between two pre-formed concrete sections comprising:  
a first concrete section having a first side extending along the first concrete section and a first edge connected to the first side;  
a second concrete section having a second side extending along the second concrete section and a second edge connected to the second side, the second concrete section being positioned adjacent the first concrete section with the first and second edges extending adjacent one another and being substantially evenly spaced from one another along the sections, the first and second edges being formed from a plastic material; and  
a continuous weld extending between the first and second edges and  
10 connecting the first section to the second section, the weld being formed from a semi-flexible plastic material.
10. The joint of Claim 9, wherein the first and second edges are spaced at least 1/8 inch from one another.
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11. The joint of Claim 9, wherein each section includes a top surface, a bottom surface disposed opposite the top surface, and a groove extending adjacent the respective edge and the top surface, the weld being at least partially disposed within the grooves and being vertically below the top surfaces of the sections.
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12. The joint of Claim 9, wherein the weld forms a seal between the first and second edges and resists material from passing between the sections.

13. A concrete section assembly comprising:

a first and second concrete section, each section having a first end and a second end disposed opposite one another, a side extending between the first and second ends of the section, a edge connected to the side of each section and extending along the side, the sections aligned with the respective side of each section being adjacent to one another; and

a continuous weld between the edges of the sections and extending substantially along the length of the sections from about the first end to the second end.

14. The concrete section assembly of Claim 13, wherein the edges are formed from a plastic material.

15. The concrete section assembly of Claim 13, wherein the weld is formed from a plastic material.

16. The concrete section assembly of Claim 13, wherein the weld is semi-flexible.

17. The concrete section assembly of Claim 13, wherein the distance between the adjacent edges is greater than 1/8 inch.

18. The concrete section assembly of Claim 13, wherein each section has a deck, the decks of each section being substantially co-planar with one another.

19. The concrete assembly of Claim 13, further comprising a recessed groove disposed between the sections and being at least partially defined by the sides, the edges and the weld.

20. A method for forming a seal between two concrete sections comprising the acts of:

5 providing two concrete sections, each section having a first end and a second end disposed opposite one another, an elongated plastic edge at least partially embedded in the section and extending between the first end and second end;

positioning the sections adjacent one another with the edges evenly spaced apart;

welding a plastic material between the two plastic edges to fuse the two edges together and form a continuous seal between the respective edges.

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21. The method of Claim 20, wherein each section includes a relatively flat deck, the act of position the sections further comprising the act of aligning the sections with the deck of each section being substantially co-planar with one another.